

CLAIMS: *Please amend the claims according to the status designations in the following list, which contains all claims that were ever in the application, with the text of all active claims.*

CLAIMS: What is claimed is:

1. (CURRENTLY AMENDED) A method for face modeling, comprising the steps of:
 - (a) processing face detection and facial feature detection on a plurality of images for a person with a single or a plurality of image capturing systems,
 - (b) locating four landmarks on the face of the person based on the facial feature detection, wherein the face is detected by the face detection, and wherein three point features from the four landmarks form a basis plane,
 - (c) training support vector machine (SVM) based demographic classifiers with a few thousand images as an input at a learning phase,
 - ~~(b)~~ (d) processing said plurality of images to obtain demographic recognition of the person in the captured images using the support vector machine (SVM) based demographic classifiers,
 - ~~(e)~~ (e) choosing a face model specific to the demographic recognition of the person as an approximate face model, and wherein calculation of affine coordinates using demographic dependent constant can be facilitated by the chosen approximate face model, and
 - ~~(d)~~ (f) combining said demographic recognition with affine coordinate based mesh adjustment technique for said face modeling,wherein said demographic recognition comprises gender and ethnicity recognition, and whereby the face modeling is followed by a view generation of the face using rendering tools.

2 - 5. (CANCELED)

6. (PREVIOUSLY PRESENTED) The method according to claim 1, wherein the method further comprises a step of using affine lines and their slope adjustment, which is proportional to depth of the point, for model estimation.

7. (CANCELED)

8. (CANCELED)

9. (PREVIOUSLY PRESENTED) The method according to claim 1, wherein the method further comprises a step of using the affine line properties for re-projecting a matched pair in two images to a third image, once four facial landmarks are located in all of the three images.

10. (PREVIOUSLY PRESENTED) The method according to claim 1, wherein the method further comprises a step of using a single view to crudely model the face based on gender and ethnicity and then use anthropometric measures for identification.

11. (PREVIOUSLY PRESENTED) The method according to claim 1, wherein the method further comprises a step of using multiple views to model the face in the image based on the combination of the demographics and the affine line properties and then use the anthropometric measures for identification purposes.

12 - 15. (CANCELED)

16. (CURRENTLY AMENDED) An apparatus for face modeling, comprising:

(a) a single or a plurality of image capturing means directed at a person,

(a) means for processing face detection and facial feature detection on a plurality of images for the person,

(b) means for locating four landmarks on the face of the person based on the facial feature detection,

wherein the face is detected by the face detection, and

wherein three point features from the four landmarks form a basis plane,

(c) means for training support vector machine (SVM) based demographic classifiers with a few thousand images as an input at a learning phase,

~~(b)~~ (d) a processing means for recognizing demographics from at least an image,

~~(e)~~ (e) a selection means that chooses a face model specific to the demographic recognition of the person as an approximate face model,

whereby calculation of affine coordinates using demographic dependent constant can be facilitated by the chosen approximate face model,

~~(d)~~ (f) a processing means for combining the demographics recognition with affine coordinate based mesh adjustment technique for said face modeling, and

~~(e)~~ (g) at least a rendering tool for a view generation of the face,

wherein the demographics recognition comprises gender and ethnicity recognition.

17. (PREVIOUSLY PRESENTED) The apparatus of claim 16, wherein said processing means further comprises a hardware system consisting of disparate cameras at disparate locations, images from which are used for said face modeling, whereby usages of the disparate cameras comprise multiple processing of the face modeling for multiple users.

18 - 19. (CANCELED)

20. (PREVIOUSLY PRESENTED) The apparatus of claim 16, wherein the apparatus further comprises means for using said affine lines and their slope adjustment, which is proportional to depth of the point, for model estimation.

21. (CANCELED)

22. (CANCELED)

23. (PREVIOUSLY PRESENTED) The apparatus of claim 16, wherein the apparatus further comprises means for using the affine line properties for re-projecting a matched pair in two images to a third image, once four facial landmarks are located in all of the three images.

24. (PREVIOUSLY PRESENTED) The apparatus of claim 16, wherein the apparatus further comprises means for using a single view to crudely model the face in the image based on the gender and ethnicity and then use anthropometric measures for identification.

25. (PREVIOUSLY PRESENTED) The apparatus of claim 16, wherein the apparatus further comprises means for using multiple views to model the face in the image based on the combination of the demographics and the affine line properties and then use the anthropometric measures for identification purposes.

26 - 31. (CANCELED)